

# Model PD-5

(Physical Hard Drive Destroyer)

## Operator's Manual

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## Introduction

Thank you for purchasing the PD-5 Physical Hard Drive Destroyer. The PD-5 will physically destroy working and non-working hard disk drives (HDD), Network HDD, Half-Height HDD, Standard HDD and Laptop HDD by bending, breaking and mangling data platters, pc boards and the frames of the hard drives.

The PD-5 is also designed to destroy solid state memory devices when used with the optional SSD Destroyer accessory.

To ensure safe operation of the PD-5, please be sure to read and understand the contents of this operator's manual before operating the PD-5. We also advise you to keep this manual at hand for a quick reference in the future.

## Important Instructions

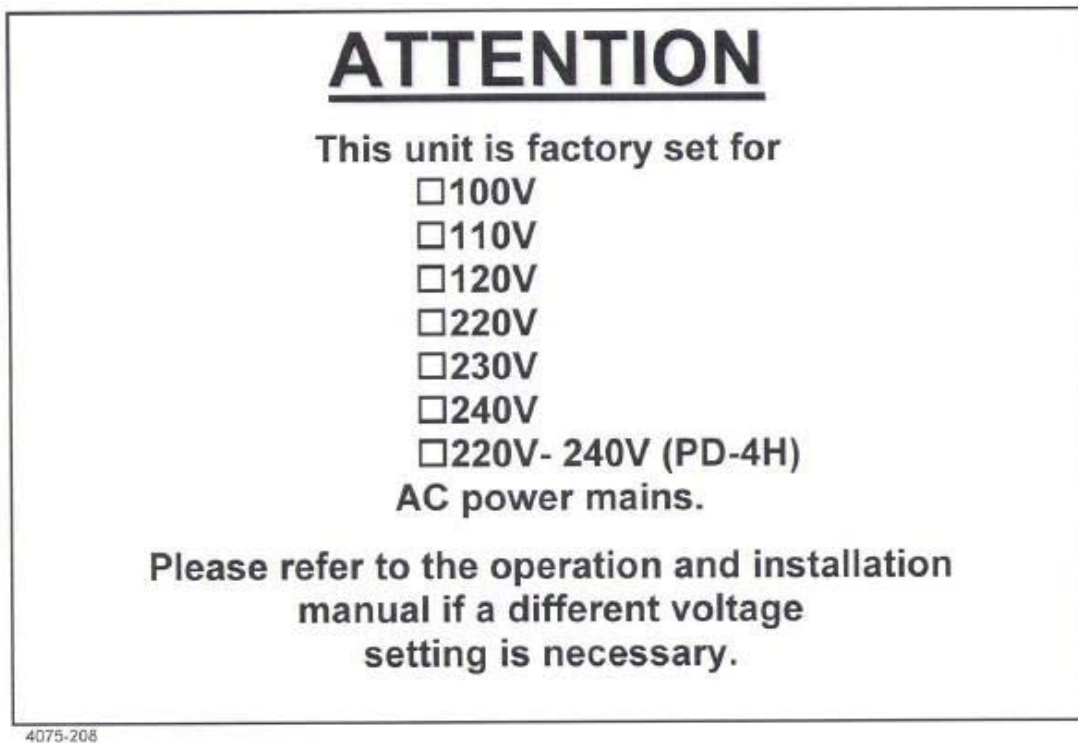
**PLEASE READ THIS INFORMATION  
BEFORE USING MODEL PD-5**

This shipment was packaged and delivered to the carrier with utmost care to ensure safe delivery of goods to you, our valued customer. **PLEASE RETAIN ALL SHIPPING MATERIALS FOR FUTURE USE. FAILURE TO DO SO MAY RESULT IN FREIGHT DAMAGE AND VOID WARRANTY.**

In the event that you must transport your PD-5 to a different location or to the factory for repair service, you must package it for safe delivery. Failure to do so may result in freight damage and will void the factory warranty.

Please contact Garner Products, Inc. at (800) 624-1903 for further information if required.

## Factory Voltage



Each PD-5 comes with the above insert identifying the factory set voltage configuration. If the identified voltage does not match your voltage mains, the correct voltage can be easily configured using the field selectable switch. In the event the PD-5's voltage setting needs to be changed, please perform the following steps:



**NOTE: BEFORE PERFORMING ANY MAINTENANCE ON THE PD-5, TURN THE UNIT OFF AND UNPLUG THE POWER CORD FROM THE ELECTRICAL OUTLET.**

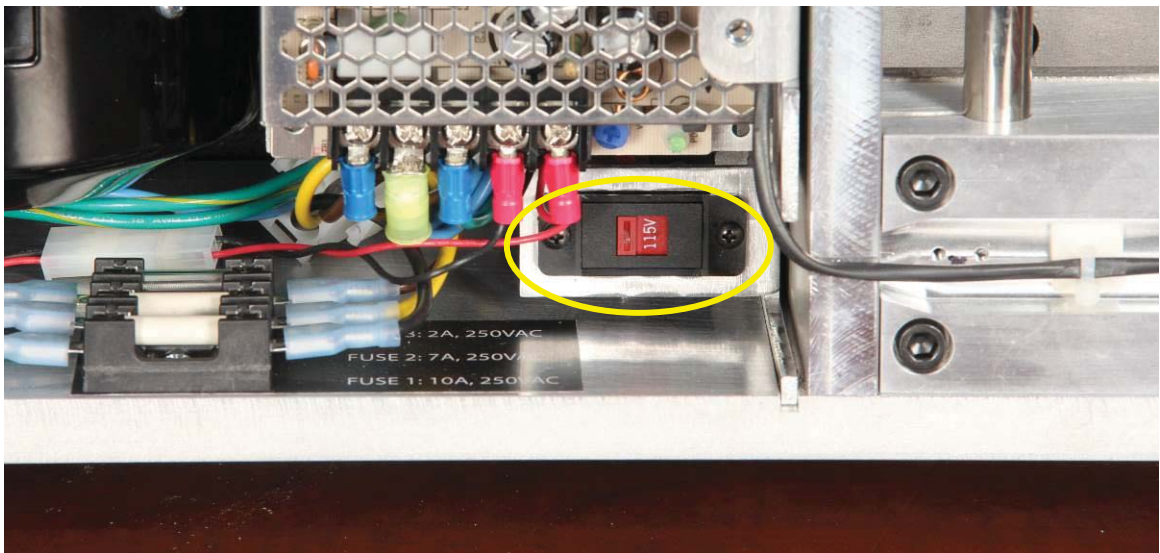
- 1) Remove 11 screws with T-20 Torx Driver from the chassis' right side.



- 2) Carefully set the side panel perpendicular to the rear of the unit. Note: The ground cable attached to the side panel does not need to be removed.



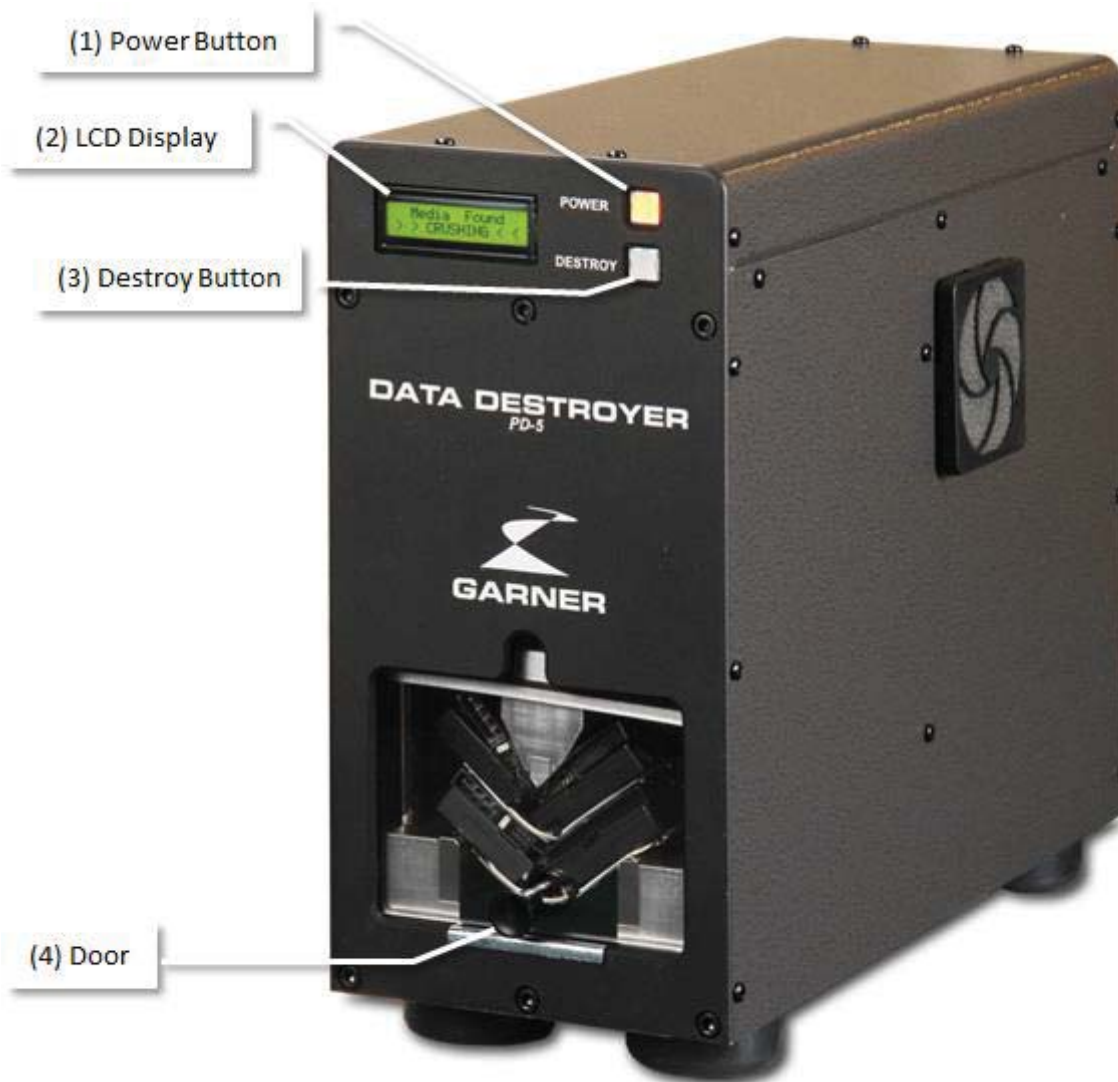
- 3) Slide the red power setting switch to either the 115V or 230V setting. Choose the setting that most closely matches your power mains voltage.



- 4) Replace the side panel and secure with 11 screws using T-20 Torx Driver.

## PD-5 Component Identification

### *Front Panel Identification*



### *Front Panel Description*

1) <b>Power Button</b>	Applies power to the PD-5.
2) <b>LCD Display</b>	32 Character LCD Display with counter for Session and Total.
3) <b>Destroy Button</b>	Initiates the destruction function.
4) <b>Door/Door Handle</b>	Prevents access to the HDD and destruction wedge during the destruction process. If opened during the destruction process, the destruction wedge will automatically stop. When the door is closed, the destruction wedge will return to its home position.



## Inside Component Identification



## Inside Component Description

1) <b>Destruction Wedge</b>	The Destruction Wedge pushes down on the hard drive(s) bending and breaking the external and internal components, rendering the hard drive inoperable.
2) <b>Hard Drives</b>	Image shows the proper location of two 1" hard drives stacked on top of each other. <b>Note:</b> Hard drives are centered between the two Support Rails.
3) <b>Support Rails</b>	Supports and aligns the hard drive(s).
4) <b>Debris Tray</b>	Removable tray helps collect hard drive debris caused by the destruction process. The Debris Tray can be easily lifted out and emptied.

## Operating the PD-5

### *Initial Startup*

- 1) Unpack the shipping carton/case and take out the PD-5 Physical Destroyer.
- 2) Make sure that the PD-5 has not been damaged during transportation.
- 3) Retain all shipping materials for possible future use.
- 4) Confirm power configuration as indicated on the attached sheet placed with this manual. Alternately, you can perform the steps in the "Factory Voltage" section of this manual.

### *Single Button Operation*

- 1) Press the "Power" button. The LCD display will go through a start sequence which will display manufacturer information, software version, total number of cycles and then a ready screen. The destruction wedge returns to home position.
- 2) Open door (The LCD display will show "Door Open") and place the hard drive(s) on the Support Rails.  
**Note:** Center the hard drive between right and left Support Rails and ensure the hard drive(s) are positioned towards the back (Laptop drives can be oriented perpendicular to the standard drive orientation to mount on both support rails).
- 3) Shut the door. The LCD will display "Ready Session: 0".
- 4) Press the "Destroy" button. The PD-5 will destroy the media in the destruction chamber and return to the home position, ready to destroy the next piece of media.
- 5) Open the door and remove the hard drive(s) when the LCD displays "Ready Session: 1", indicating the destruction process is complete and a cycle has been recorded.
- 6) Repeat Steps 2-5 until the job is complete.



## Display Messages

Action	LCD Display	Description
<b>Step 1:</b> Press POWER button	GARNER PRODUCTS, INC.	Displays Manufacturer.
	Garner Products PD-5 Crusher	Displays Destroyer Model.
	FIRMWARE VER ##	Displays current firmware version.
	Total Count #      --      ##	Displays total erasing cycles. Number on left indicates number of times the counter reached 50,000.
	Ready Session = 0	Ready for media to be placed in the destruction chamber. Counter for erase cycles from power up.
<b>Step 2:</b> Insert media <b>Step 3:</b> Press "Destroy"	Door Open	Indicates media safety door is open – this is normal when inserting media to be destroyed.
	Finding Media	Destroy cycle has started.
	Media Found > CRUSHING <	PD-5 switches from high speed to high torque to crush media.
	MAX FORCE	PD-5 has used maximum force and will stop and return to home.
	Going Home	Indicates PD-5 is returning to home position (Wedge at MAX height).
<b>Step 4:</b>	Ready Session = 1	Destroy cycle is complete. Open door and remove media.
<b>Periodic Maintenance:</b>	Service Required See Operator's Manual	Every 10,000 cycles, the PD-5 requires service. See page 13 of manual for details

## Operating Environment

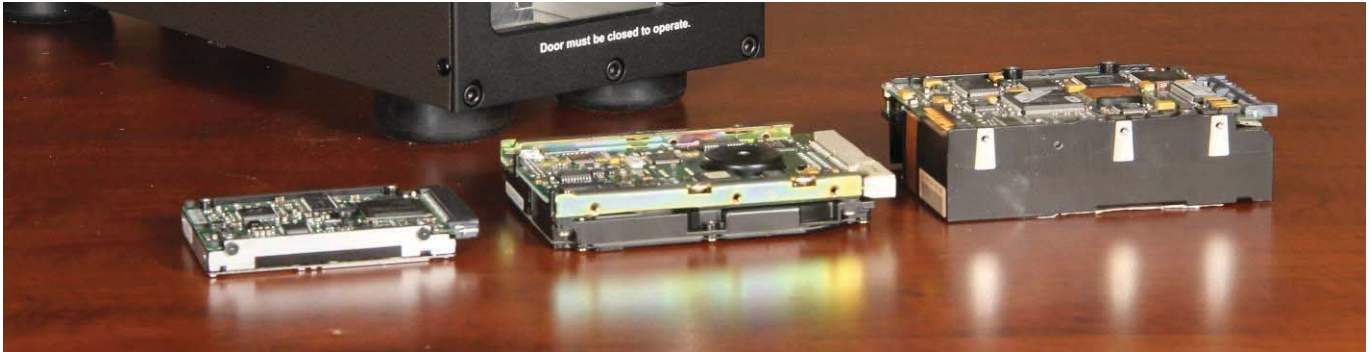
Do not use or keep the PD-5 in environments with excessive heat, cold, humidity, or dust.

Use caution when bringing the PD-5 from a cold environment into a warm environment. If moisture has accumulated due to a sudden change of temperature, wait (1) hour until moisture has completely dissipated before operating the PD-5.

Place the PD-5 on a secure and stable horizontal surface. Position the PD-5 to allow proper air flow from the side air inlets and the rear exhaust. A minimum clearance of 6 inches from any obstructing wall or solid surface is recommended.

## ***Hard Drive Destruction***

The PD-5 is designed to destroy many different formats of hard drives including: laptop drives, standard 1" drives, and 1.5" drives.



To destroy hard drives:

- 1) Press Power button.
- 2) Remove mounting hardware from hard drive that would cause the media door not to close.
- 3) Lift door, and insert hard drive into PD-5.



- 4) Close door and press the "Destroy" button to activate destruction cycle.
- 5) Open Door and remove the crushed hard drive(s).

## ***Multiple Hard Drive Destruction***

The most efficient way of destroying hard drives is to destroy multiple hard drives at one time. The PD-5 is designed to destroy up to (8) laptop drives or (2) standard 1" drives at one time.

Single Hard Drive Destruction



Multiple Hard Drive Destruction  
(Note that the image on the left is  
of 8 laptop hard drives loaded  
perpendicular to the support rails)



## ***Sold State Drive Destruction Using the Optional SSD-1***

- 1) Lift door, and insert SSD-1 solid state destroyer into PD-5



- 2) Place SSD's, USB drives, compact flash disks, cameras, hard drive controller boards and cell phones (**REMOVE BATTERY FIRST**) in between the panels of the SSD Media Transport Sleeve and slide the sleeve into the opening within the SSD Destroyer.



- 3) Close the door and press the “Destroy” button. The PD-5 and the SSD Destroyer will destroy the media and return to home position to be ready to destroy the next piece of media.



- 4) Open the door and remove the media by gripping the end of the SSD Media Transport Sleeve. The SSD Media Transport Sleeve is tough and designed for multiple cycles. The LCD displays “Ready Session: 1”, indicating the destruction process is complete and a cycle has been recorded. Remove SSD destroyer if desired.

## ***Cleaning***

Wipe dirt off with a soft and dry cloth. Do not use chemicals or solvents.

**Note:** Use caution when cleaning the unit as some debris is sharp and may contain glass.

To achieve proper hard drive placement, sweep or vacuum Hard Drive debris from the inside of the PD-5. Empty debris from the Debris Tray and remove any debris that has remained on the Support Rails. Excess debris will alter the placement of the HDD and may cause damage to the PD-5. (See “Cleaning the Debris Tray”, page 12.)



## ***Cleaning the Debris Tray***

During the destruction process small fragments of the hard drive may be left on the Support Rails and in the Debris Tray. Sweep or vacuuming the fragments from the Support Rails into Debris Tray located on the bottom of the Destruction Chamber in between the Support Rails of the PD-5. When enough debris has accumulated, the Debris Tray needs to be removed and emptied.

- 1) Make sure destruction wedge has returned to the top or home position. Wait for motor to stop.
- 2) Open Door.
- 3) Sweep debris from side rails into Debris Tray.
- 4) Lift and remove Debris Tray.
- 5) Empty Debris Tray into trash container.
- 6) Check bottom of crush chamber for additional debris.

If additional debris is found use a small brush to move additional debris to the front of the destruction chamber. There are two holes that allow debris to be swept out of the floor of the destruction chamber. **Note:** Placing the debris tray under the front of the PD-5 will catch the debris as it falls from the two holes in the front of the destruction chamber. (See "Cleaning Tips" below).

- 7) Replace the Debris Tray and resume the destruction process.

**Note:** Make sure that the Debris Tray is inserted all the way to the back of the chamber or the door will not shut completely.

**Cleaning Tip:** You can use the debris tray itself to clear remaining debris from the bottom of the PD-5 as demonstrated in the images below.





## ***Periodic Maintenance (Every 10,000 cycles)***



**NOTE: BEFORE PERFORMING ANY MAINTENANCE ON THE PD-5, TURN THE UNIT OFF AND UNPLUG THE POWER CORD FROM THE ELECTRICAL OUTLET.**

### **Greasing the Drive Shaft**

Remove the left side of the PD-5 by removing 11 screws with a T-20 torx driver. Locate the knurled brass knob and rotate ½ turn clockwise. This will automatically apply grease to the drive shaft.



### **Greasing the Vertical Crusher Slide Rails**

Lift the door and apply a small coat of white lithium grease on each vertical crusher slide rail with a Q-tip. Spread until a thin layer of grease coats the entire rail. Repeat on each of the four rails.



## Cleaning the Air Filters

Remove the side air filter housing by hand and clean any major debris off foam filter. Use canned-air to blast any dust or debris from filter. Replace foam filter in plastic housing and firmly reattach to side panel by ensuring all 4 plastic tabs securely latch to adjacent filter frame.



## Inspecting/Cleaning Exhaust Exit Fan

Inspect the rear panel of the PD-5 to ensure exit fan is free of dust and debris. If any dust or debris is found, clean/remove it from fan assembly.



## Parts List

Part Number	Description
2500-091B	Rail, door slide
2600-013	Fan, 24vdc
2600-014	Filter assy
2600-015	Finger guard, fan
2825-278	Bolt, shoulder 3/8 dia .75
2825-289	Knob, plastic
2825-294A	Tray, debris
335-0010	Fuseholder, 3AG
356-0001	SS Relay, 240VAC 40A
3500-059B	Gear, 48 tooth
3500-060E	Gear, 16 tooth
3500-064E	Shaft, gear
3500-066D	Gear, spur 60 tooth
3500-068	Motor, 110/115
4000-007	Power Supply, 90-264VAC
4300-026	Fuse, 10A 250V slow blow
4075-270H	Manual, operation PD-5
4500-023	Relay, SS SPST 5A
4700-045	Resistor, R5 50W
5100-001	Pushbutton switch
5100-034	Switch, power rocker
SA1400-216B	Rail, crush chamber
MS2400-058C	Rail, media support
SA2500-059B	Plate, compression
MS2400-059B	Screw, acme
MS5400-006B	Wedge, media destroyer
SA1400-215C	Plate, crush chamber side
SA1400-258B	Door, crush chamber
SA1700-205D	PCB, main control populated
SA1700-206B	PCB, control panel populated
SA1700-207G	PCB, chamber sense
SA2400-060B	Bar, media stop
SA2400-062C	Rail, bumper
SA2500-090B	Bracket, index cntr
SA3500-070C	Index card, motor
SA6000-085A	Harness, wiring PD-5

## Specifications

<b>Power Supply</b>	<b>Standard Factory Setting:</b> 120V $\pm$ 5% 50/60 Hz <b>Field Selectable:</b> (100-240V) (50 or 60 Hz)
<b>Power Consumption</b>	1.5A Operating, 7A MAX @ 120VAC
<b>Cycle Time PD-5 Standard Model</b>	<b>Full Cycle:</b> ~ 20 seconds <b>Destroy Cycle:</b> ~ 10 seconds
<b>PD-5 Standard Model Capacity</b>	2.5" and 3.5" Hard Drives. Disk drives up to 1.66" high. Two 1" high standard hard disk drives. Up to eight laptop hard disk drives.
<b>Operating Environment</b>	41°F - 104°F (5°C - 40°C), Humidity: 10 to 80% (Non-Condensing)
<b>Physical Weight</b>	<b>PD-5:</b> Net 72 lbs. (32.66Kg) <b>Case:</b> 23 lbs. (10.43 Kg)
<b>Shipping Weight</b>	82 lbs. (37.19 Kg)
<b>Physical Dimensions</b>	<b>PD-5:</b> 18.0 in. (L) x 7.0 in. (W) x 14.5 in. (H) <b>Case:</b> 17 in. (W) x 24.5 in. (L) x 22.5 in. (H)
<b>Shipping Dimensions</b>	24 in. (L) x 12 in. (W) x 20 in. (H)
<b>Warranty</b>	1 Year Parts and Labor Limited Warranty
<b>Duty Cycle</b>	Continuous*

\* Ambient temperatures above 75 degrees F will have an effect on duty cycle.



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## Warranty

### **GARNER PRODUCTS, INC. LIMITED WARRANTY AND WARRANTY RETURN POLICY**

**Garner Products, Inc.** ("Garner") warrants this Garner-branded product ("Product") against defects in materials and workmanship for a period of ONE (1) YEAR from the date of purchase by the original end-user ("end-user") as evidenced by end-user's packing slip or invoice ("Warranty Period"). No Product may be returned except upon prior written permission by Garner and shipment to factory with transportation charges prepaid.

If a defect arises and a valid claim is received within the Warranty Period, at its option, Garner will either: (1) repair the Product, (2) exchange the Product, or (3) request that end-user replace defective parts with new or refurbished user-installable parts that Garner provides in fulfillment of its warranty obligations. A replacement Product or part, including a user-installable part that has been installed in accordance with instructions provided by Garner, assumes the remaining warranty of the original Product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage.

Garner's liability under this warranty is limited to Garner's cost of replacing any part or Product found by Garner to be defective and shall not exceed the original purchase price of the defective Product. End-user's sole and exclusive remedy against Garner shall be for the replacement of the defective part or Product as provided herein.

This warranty does not apply to: (a) cosmetic damage, including but not limited to scratches, dents and broken plastic; (b) freight damage; (c) consumable parts; (d) normal wear and tear; (e) damage caused by accident, abuse, inadequate wiring, power surge, rust, corrosion, neglect, misuse, water, fire, earthquake or other external causes; (f) damage caused by operating the Product outside the permitted or intended uses described by Garner; (g) damage caused by service performed by anyone who is not a representative of Garner or a Garner authorized service provider; (h) a Product or part that has been modified to alter functionality or capability without the written permission of Garner; or (i) if any Garner serial number has been removed or defaced.

No Garner dealer or reseller is authorized to make any modification, extension, or addition to this warranty.

#### **DISCLAIMER**

**THIS WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR USE. GARNER'S MAXIMUM LIABILITY SHALL BE LIMITED TO THE PURCHASE PRICE OF THE PRODUCT.**

#### **LIMITATION OF LIABILITY**

**IN NO EVENT SHALL GARNER BE LIABLE TO ANY PARTY FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE THAT ARISE FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE, LOSS OF REVENUE, LOSS OF ACTUAL OR ANTICIPATED PROFITS, LOSS OF BUSINESS, OR LOSS OF GOODWILL.**

**GARNER'S MAXIMUM LIABILITY SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT WHICH GIVES RISE TO THE CLAIM. END-USER'S SOLE AND EXCLUSIVE REMEDY FOR ANY CAUSE OF ACTION, WHETHER ARISING FROM BREACH OF CONTRACT OR TORT, IS A CLAIM FOR DAMAGES WHICH IN NO EVENT WILL EXCEED THE PRICE OF THE SPECIFIC PRODUCT AS TO WHICH THE CLAIM IS MADE.**

### **WARRANTY RETURN POLICY**

If a problem occurs with this Product, contact Garner directly by **Email at Info@Garner-Products.com** or by **phone at (916) 784-0200** to obtain technical support and/or to get a Return Authorization Number (RA#).

All returns must be specifically authorized by Garner prior to shipment and returned to Garner **FREIGHT PREPAID** with the RA# marked prominently near the shipping label.

Garner recommends using the original shipping container to securely package the Product. It is end-user's responsibility to ensure the Product is packaged properly to prevent damage during transit to Garner. Garner will provide product packaging to end-user at end-user's request and expense.

Enclose proper documentation, including RA#, the return address, a name and phone number of the contact person, the serial number of the merchandise being returned and a description of the reason for the return. Omission of any of this information may delay service. Garner recommends end-user insure the shipment; otherwise end-user accepts the risk if Product is lost or damaged in shipment.

Garner will pay to ship the repaired or replacement Product to end-user's shipping dock if end-user's delivery address is in the United States (excluding Puerto Rico and U.S. possessions and territories); otherwise Garner will ship the Product to end-user freight collect. Garner will select method for return shipment. Alternate shipment methods may be made at end-user's expense.